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APPLICATION NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
08/588,484	01/18/96	THUNDAT	T 2240-7141

EXAMINER

B5M1/0324

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ART UNIT	PAPER NUMBER
FIELDS, C 2506	9

DATE MAILED: 03/24/97

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

OFFICE ACTION SUMMARY

☒ Responsive to communication(s) filed on 2-11-97

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 1935 D.C. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-24 is/are pending in the application.
Of the above, claim(s) _____ is/are withdrawn from consideration.
☒ Claim(s) 24 is/are allowed.
☒ Claim(s) 1-23 is/are rejected.
☐ Claim(s) _____ is/are objected to.
☐ Claim(s) _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.
☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
☒ The proposed drawing correction, filed on 2-11-97 is ☒ approved ☐ disapproved.
☐ The specification is objected to by the Examiner.
☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.
☐ received in Application No. (Series Code/Serial Number) _____.
☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of Reference Cited, PTO-892
☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 6
☐ Interview Summary, PTO-413
☐ Notice of Draftperson's Patent Drawing Review, PTO-948
☐ Notice of Informal Patent Application, PTO-152

--SEE OFFICE ACTION ON THE FOLLOWING PAGES--

★ U.S. GPO: 1996-404-496/40517

Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for optical radiation, does not reasonably provide enablement for other types of electromagnetic radiation. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims. Applicant's remarks have been considered; however, there is nothing in the disclosure that would indicate that an operable device could be achieved using the invention for radiation types other than optical or nuclear radiation. In the absence of specific examples, claims drawn to the entire electromagnetic spectrum provide merely an invention to invent.

Claims 1-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The preamble of claim 1 requires electromagnetic and/or nuclear radiation, and the preambles of claims 17 and 24 require electromagnetic and nuclear radiation. Such limitations make unclear the metes and bounds of the claims because nuclear radiation is a type of electromagnetic radiation. Such limitations are akin to claiming fruit and/or oranges or claiming fruit and oranges.

In claim 24, "electromagnetic and" should be deleted from the preamble because the body of the claim is limited to nuclear radiation detection.

In claims 4 and 5, it is not clear if "a microcantilever" is the same or different from the microcantilever of the parent claim.

In claim 8, for clarity, PSD should be spelled out (i.e. not abbreviated).

Claims 1,2,5 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Ruell.

Applicants' argue that temperature is not the same thing as radiation. However, infrared radiation is not only optical radiation, it is also heat. The Ruell device detects heat and inherently detects infrared radiation because infrared radiation is heat. It is noted that applicants state on page 31, line 22 that one application of their device is for night vision. Night vision devices detect infrared radiation given off as heat from an object. It is also noted that applicants' state that their device can be used for temperature measurements (page 31, lines 23 and 24).

Claims 1,2,4,5,7,11,12,17-19,22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Foss.

As argued above, infrared radiation is heat as well as optical radiation.

Claims 1,3,6,10,13,17, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Burns et al.

As argued above, infrared radiation is heat as well as optical radiation.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Foss, for the reasons of record.

Claims 9 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burns et al, for the reasons of record.

Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Foss, for the reasons of record.

Claim 24 is allowed.

It is noted that the journal article by Barnes et al, cited by applicants after the first Office action, appears to anticipate many of the claims. Applicants should consider this reference when preparing their response.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing

date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Examiner Fields at telephone number (703) 308-4860.

Carolyn E. Fields
CAROLYN E. FIELDS
EXAMINER
ART UNIT 256

Fields/jm

March 21,1997